

# Atari Age



JULY / AUGUST 1982 • VOLUME 1 • NUMBER 2



# INSIDE INSIDE INSIDE INSIDE INSIDE

Haven't you always wanted to open up your Atari Video Computer System (VCS) console and see what goes on inside? Don't do it—there are delicate electronic parts inside! Instead, let us take you inside your VCS, in this guided tour through the hardware at the heart of Atari's electronic magic.

Shown below, stripped of its outer shell, is an Atari CX2600A console (the major difference between the CX2600 and the CX2600A is the placement of the difficulty select switches).

At the bottom right of the board is a silver-colored box which houses the *RF modulator*. The RF (Radio Frequency) modulator translates the game computer's output into a signal which your TV set can receive. Your Atari game acts as a miniature TV station, sending out a signal which your television receives on the Channel 2 or Channel 3 frequency. That's why your Atari game console is registered with the Federal Communications Commission—it is a real transmitter and must meet government legal requirements. That also explains why there are two metal shielding boxes incorporated in the



## YOUR ATARI VCS

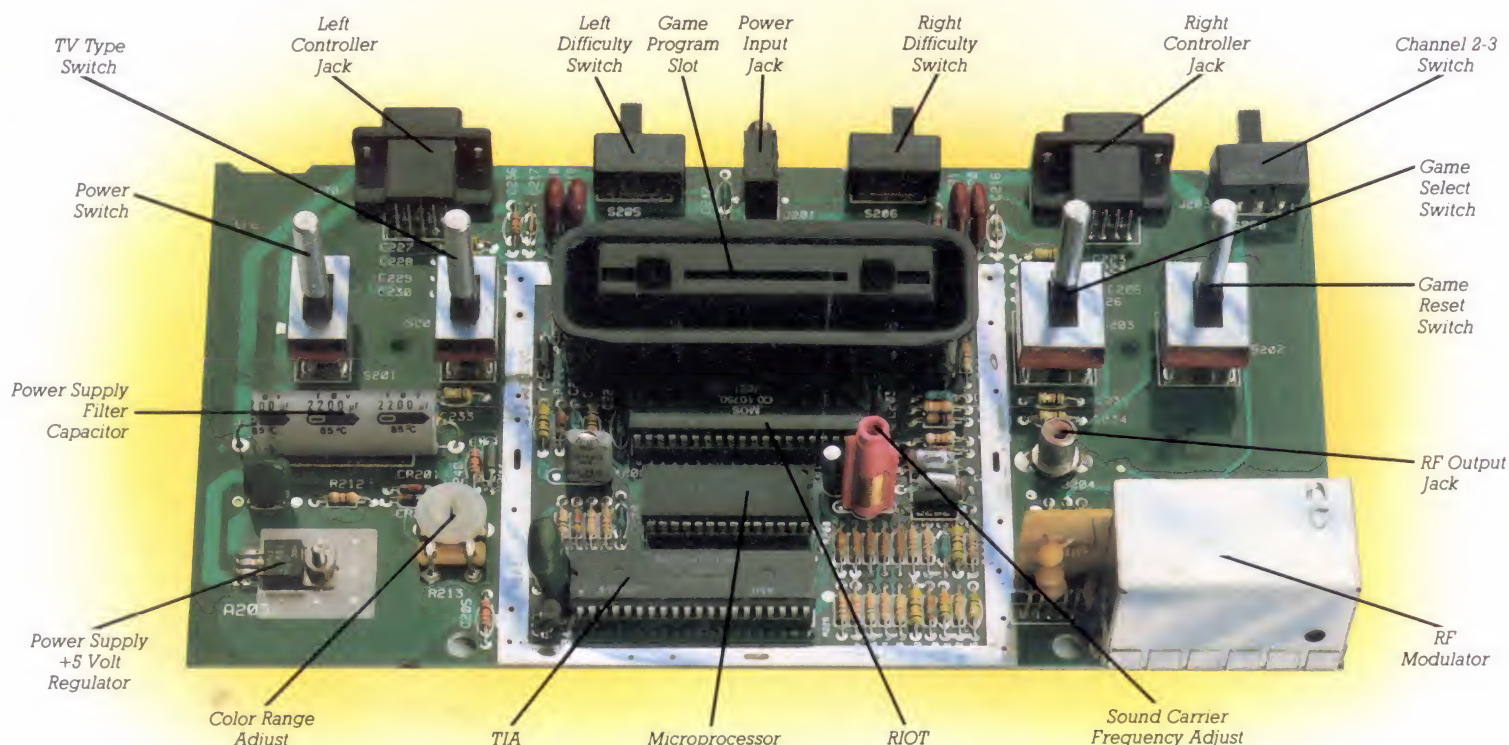
console design—the one over the RF modulator and a larger one which fits over the silver lines at the center of the console shown here. These boxes limit the console's broadcast signal path to the antenna connection cable, preventing your unit from interfering with your neighbor's TV reception.

The moving picture you see on your TV screen is actually a continuous se-

ries of individual still pictures created very rapidly by the Atari computer. Each image is "drawn" by the computer, one line at a time, 192 lines to the screen—the VCS creates 60 complete screens, one line at a time, *every second!* The computer actually does three jobs—it creates a complex on-screen image and sound, senses what you are doing with your controllers, and determines how that affects the image for the next frame—then it creates that new frame and starts the process all over again.

The "nerve center" of the Atari VCS unit is contained in the three black rectangular components in the center, below the Game Program slot. These units are *integrated circuits*—silicon chips designed to do the job of thousands of transistors. The top one is called a *RIOT* (Ram, Input/Output, interval Timer device). Its job is to read the information fed into it by the control switches and the joysticks.

The rectangular component in the middle is the *microprocessor*—the "brains" of the unit. The microprocessor  
(Continued on P. 19)



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ATARI AGE (ISSN 0731-5696) is published bi-monthly by The Atari Club, 1700 Walnut Street, Philadelphia, PA 19103. Third class bulk rate postage paid at Philadelphia, PA and at additional mailing offices.

Any material sent to *Atari Age* in response to any invitation in this issue or letters to the editor will become the sole property of The Atari Club and may be published or otherwise disposed of at the absolute discretion of The Atari Club without further notice.

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**PELE VISITS MIDEAST AS ATARI GOODWILL AMBASSADOR.** Being guest of honor at the Middle East Soccer Championships was the high point of Pele's tour of Abu Dhabi, Bahrain, Dubai, and the UAE, where he met with thousands of Atari fans.



## Atari Excitement Spreads From the Frozen Alps to Heated Middle East Competition

### *Pac-Man Arrives in Europe ... on Skis!*

After winning the hearts of millions of Americans, Pac-Man and his ghostly goblin' friends packed up and headed for Europe. First stop was Zermatt, Switzerland, where Pac-Man made his entrance in typically dashing style—skiing down the Alps!

After conquering the slopes, the Yellow Fellow was off on a whirlwind tour, zigging and zagging his way through Greece, Spain, Sweden, France, Italy, Germany, Holland, and the United Kingdom. From there he headed back to the U.S., but he'll return to Europe in September for a fantastic international Pac-Man contest! □



### *Mideast Report*

## Kuwait Couldn't Wait For DODGE'EM Championships

It was a hot Friday afternoon out on the sand at the beautiful Messilah Beach Club—but the temperature outside was nothing compared to the heated competition going on indoors, as players of all ages tested their skill in the first official Atari contest in Kuwait.

The game was *Dodge'Em*, Game Variation #1. For 10 days before the competition, Atari units were set up at the club to let eager competitors practice their driving skills.

Finally, the big day arrived. Out of 333 contestants who steered through the first round at skill level B, 39 made it with perfect scores. Then it was on to the championship round, at skill level A. The winner, Sultan Rajab Al Shu-



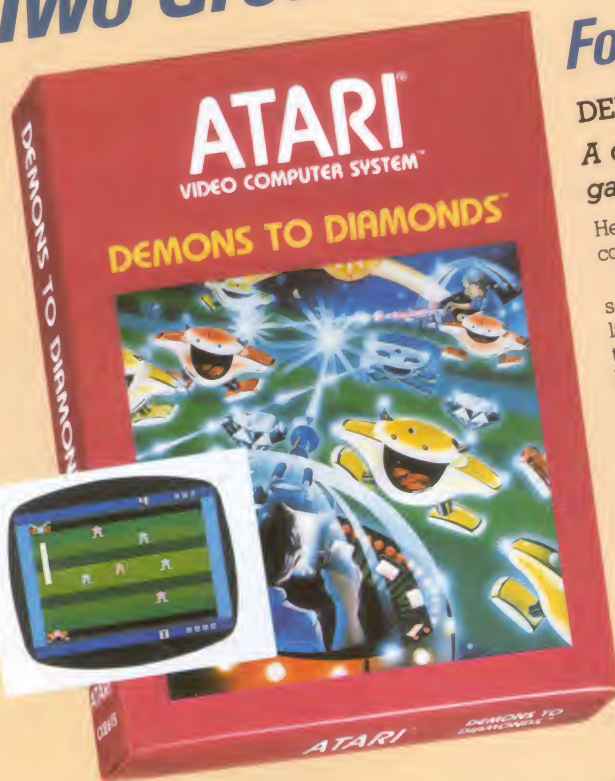
waic, racked up an impressive 983 points to walk away with the first prize—a color television, an Atari VCS, and five Game Program cartridges. □



ORDER NOW —JULY RELEASES!

# Two Great New Atari Games

## For shooting stars...



### DEMONS TO DIAMONDS

A dazzling space-age shooting gallery game the whole family will love.

Here's a sharpshooting test of skill straight from the cosmic carnival.

Beautifully animated demons march across your TV screen, daring you to hit them with a shot from your laser base. Aim carefully, though—you only want to hit the demons in your own color. Every time your laser beam strikes your opponent's target, the demon magically transforms itself into a deadly skull, which starts shooting back at you!

In the midst of this demonic parade, diamonds suddenly appear—precious indeed when you manage to hit one for a big point score.

The action is fast and furious in this 21st Century marksman's dream-come-true cartridge.

One or two players

Six games

\$26.95

## ...and racing aces.

### MATH GRAN PRIX

Learning arithmetic is child's play with this entertaining new cartridge.

Now young Atari game fans can learn basic arithmetic while enjoying an exciting video auto race.

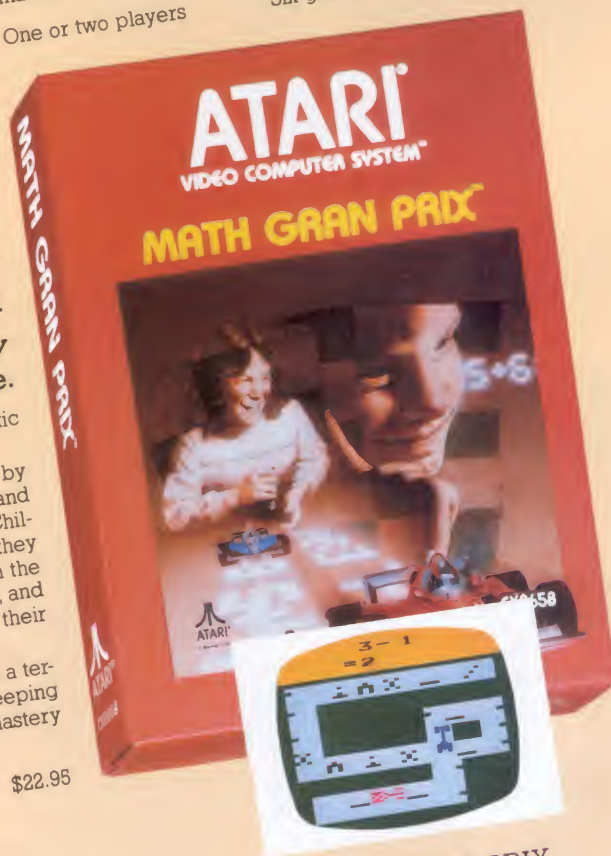
Players drive through a twisting race course by answering addition, subtraction, multiplication, and division problems presented by the Atari game. Children are eager for the next question to appear as they steer math-powered cars toward special spots on the track, hoping to gain extra turns and extra spaces, and trying to bump their opponents off the road in their race for the finish line.

MATH GRAN PRIX makes learning arithmetic a terrific treat for children 6 through 10 years old, keeping young players happily on the road to math mastery for hours on end.

One or two players

Nine games

\$22.95



Get DEMONS TO DIAMONDS and MATH GRAN PRIX as soon as they're released—order today!

**CALL TOLL FREE 1-800-345-8600**

(PA Residents Call 1-800-662-5180)



## "Atari Force" Arrives — Bonus Color DC Comics Included With Game Cartridges

Now, when you open specially marked Atari game cartridge boxes, you'll find a double helping of excitement—super video games and full-color DC comic books starring Atari superheroes.

The first cartridge to include a bonus comic book is *Defender*. This full-color 48-page adventure takes place in the year 2005. In scene after action-packed scene, we travel from the Atari Technology and Research Institute to Solar Satellite Station One, to the moon, on to a war-torn jungle, and back to the Atari Institute, where a mysterious figure has penetrated the supposedly unbeatable security system.

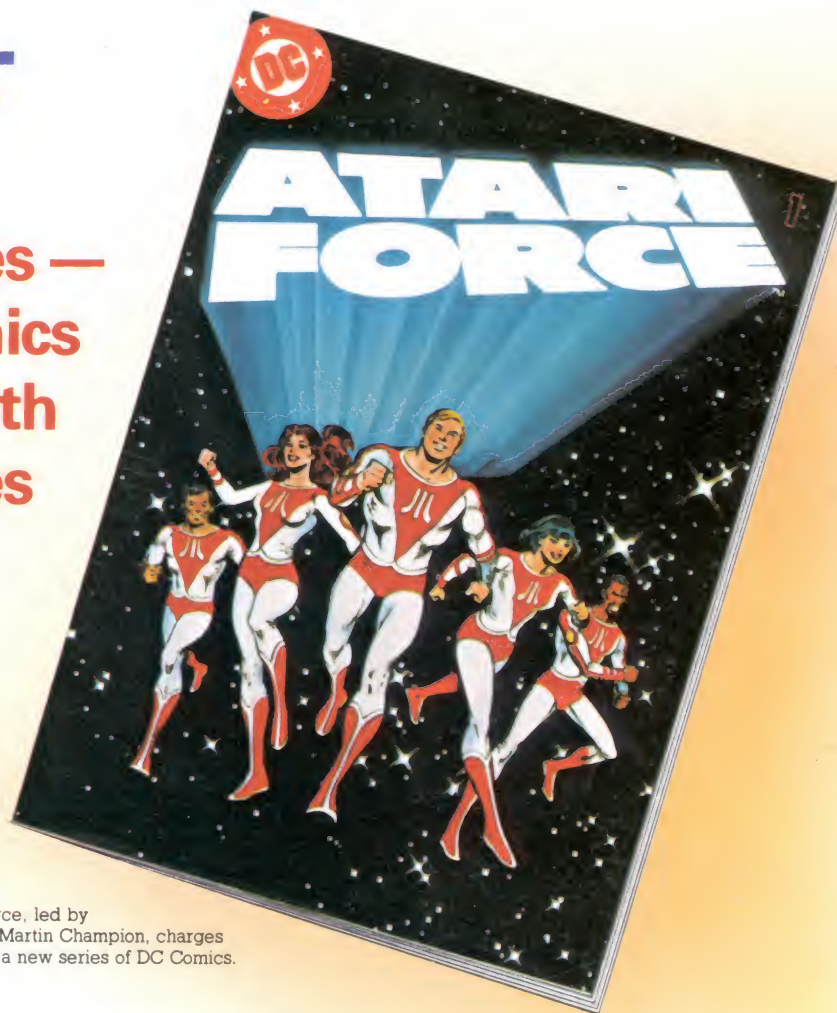
What's she up to? And how will the diverse characters we meet become the tightly knit Atari Force? The answers are found in the second comic

The Atari Force, led by Commander Martin Champion, charges into action in a new series of DC Comics.

book, packaged with Atari's August release, *Berzerk*.

A third comic will appear later in 1982, to accompany the exciting new

*Star Raiders* cartridge—and plans call for the Atari Force to continue battling against evil in 1983. □



## Sneak Peeks

Things are really jumping at Atari headquarters, with new projects happening everywhere you look. Here's a sampling of what we've learned about coming attractions.

### Home Video Games

**More New Video Games Added to '82 Schedule.** When the year began, Atari announced an ambitious schedule—12 new VCS game cartridges by the end of the year. Now that plan has been revised to include 5 more cartridges—an astonishing total of 17 planned releases for 1982. Among the new additions are two games with innovative control capabilities—one using two joysticks at once to control the action, another using a joystick and a special additional

controller packaged with the Game Program cartridge.

**Big News for Electronic Athletes.** Atari game programmers have gone into training to produce a great new lineup of sports cartridges, "RealSports," with more detailed graphics and lifelike

sounds than ever before. Some are new versions of old favorites from the Game Program library—some are games never before seen on the electronic screen. Whether you're a kicker, a spiker, a bunter, or a punter, there's good news coming from Atari in the months ahead.

### Coin Video Games

**You'll Dig DIG DUG.** The folks who brought the world Pac-Man have created a brand new personality-packed coin video game which Atari has just started manufacturing and distributing.

It's called *Dig Dug*, which is also the name of the hero, a dauntless little miner who digs tunnels through the underground video display, creating a maze as he tunnels.



(Continued on P. 8)



# You Deserve An Atari Break Today

... at



The world's largest home video game manufacturer is teaming up with the world's largest restaurant chain to let folks "Taste the Thrill of Atari at McDonald's" with a spectacular nationwide contest. From August 15 to October 15, McDonald's will be giving away over 12,000 Atari prizes—video game consoles and home computers worth over \$4 million—plus additional prizes of McDonald's food and drinks.

Participating McDonald's restaurants will distribute free game pieces with the purchase of large sandwiches or specialty items from their menu. Each game piece will be based on an Atari video game—*Asteroids*, *Centipede*, *Missile Command*, or *Star Raiders*—and have a series of rub-off spots. If you can match food or Atari game prizes

without uncovering a "Zap" spot, you win. Details will be available at participating McDonald's.

Prizes will include approximately 10,000 Atari Video Computer System consoles, 1,500 Atari 400 and 800 Home Computers, and 200 full-size Cabaret model *Centipede* coin video games. For the grand prize, 50 deluxe home video packages will be given away, each of which includes an Atari 5200

Advanced Video Entertainment System and cartridges, an Atari 800 Home Computer with a complete package of accessories, the tabletop *Centipede* coin video game, and a big-screen television.

Thanks to McDonald's and Atari, the old-fashioned TV Dinner is being replaced by an exciting Video Dinner that could make you a winner! ☐

## New At The Clubhouse Store:

### Special Offers on Warlords and Game Center Organizer

The Club has so many exciting new items specially created for loyal Atari fans, we've expanded the Clubhouse Store into a three-page special section beginning on page 14 of *Atari Age*.

Many of the items have been created exclusively for The Atari Club—a TIMEX® watch with a handsome Atari design, unique Atari jewelry, and an unusual inflatable kite, for example, are available *only* to Club members.

The Clubhouse Store also has special money-saving offers on cartridges, controllers, and accessories. To help members get in on the frantic four-player action of *Warlords* and five other Atari games, the Store is offering an extra set of paddle controllers—regularly sold for \$21.95—for only \$10 with the purchase of *Warlords* through the Club.

Another special offer features the brand new Home Game Center organizer. This convenient unit holds the console, controllers, 27 cartridges, and instruction books—the complete Atari VCS set neatly stored in a single good-

looking unit. As a special introductory offer, anyone who purchases a Home Game Center through the Clubhouse Store will receive an official Atari Club mug (shown on page 17) free of charge.

The fastest way to order is by phone—1-800-345-8600 is the toll-free number to call with credit card orders (PA residents can call 1-800-662-5180). There is also a handy mail order form in this issue of *Atari Age* on page 15. ☐

### Sneak Peeks (continued)

Dig Dug has two kinds of memorable enemies chasing him—Fygar, a fierce firebreathing dragon, along with Pooka, who looks like a giant tomato wearing sunglasses. If either one catches our hero, he's done for.

Dig Dug also has a few tricks up his sleeve, though. He can tunnel beneath an underground boulder and bring it crashing down on his foe to earn big points. He also has a pump which he can use to pump up the bad guys until they explode.

Playing *Dig Dug* is a fast-moving, hilarious experience—and to add to the excitement, players can begin a new game at the same level they reached at the end of the previous game, challenging them to reach new heights of daring deep digging. ☐



The new Atari Game Center organizer holds cartridges, controllers, and console in one neat unit.



# New Service System Speeds Atari Video Game Repairs

Most people use their Atari VCS for years without difficulties. However, for those occasions when problems do occur, Atari has set up a new two-part nationwide service system to make repairs as quick and reliable as possible.

The ATARI SERVICE Centers Factory Authorized Network will allow customers to bring their machines in for repair right in their own neighborhoods. There are now over 700 Atari-trained local service centers across the country, and this number is expected to reach 1,000 by the end of 1982. The ATARI SERVICE Centers offer fast service—according to Jon Ebbs, head of Consumer Products Service at Atari, "Turnaround time for local repairs is usually 24 to 48 hours."

Atari also has four Regional Service Centers, each covering a specific group of states. By calling the toll-free number of their regional center, Atari owners can explain any service problems and get directions to their nearest ATARI SERVICE Center for walk-in repair, or receive the proper address to send in their unit.



## Western Region

Residents of AZ, CO, ID, MT, NV, NM, OR, UT, WA, and WY can call 1-800-538-1604 (CA residents call 1-800-672-1451), toll-free.

## North Central Region

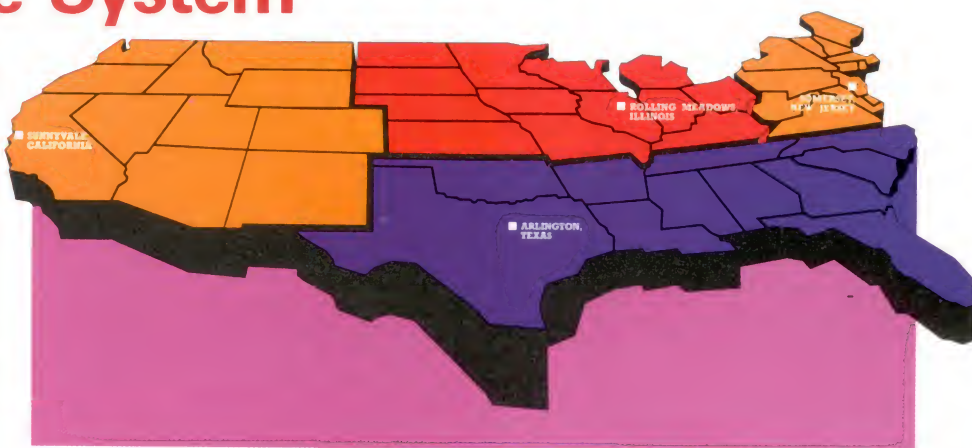
Residents of IN, IA, KA, KY, MI, MN, MO, NB, ND, OH, SD, and WI can call 1-800-323-4139 (IL residents call 1-800-942-7370), toll-free.

## Southeastern/Central Region

Residents of AL, AK, FL, GA, LA, MS, NC, OK, SC, and TN can call 1-800-433-5140 (TX residents call 1-800-772-5462), toll free.

## Northeastern Region

Residents of CT, DE, ME, MD, MA, NH, NY, PA, RI, VA, and WV can call 1-800-526-3906 toll free (NJ residents call 1-800-942-7794).



Need Atari service? Just call the toll-free number of your Regional Service Center to get the address of your local ATARI SERVICE Factory Authorized representative.

## EPRom Report

Each of the three new game cartridge releases this summer illustrates a different major trend in home video gaming.

The first, MATH GRAN PRIX, is an educational cartridge which makes it fun for kids to learn arithmetic. People who don't play video games are sometimes amazed to find 5-year-olds playing with the Atari system. Most video gaming fans, though, know at least one little whiz kid who learned to play *Asteroids* before learning to tie his shoelaces. And for all those junior joystickers, *Math Gran Prix* is an exciting new kind of "educational television"—it's TV they control and participate in.



DEMONS TO DIAMONDS is one of the new generation of cartridges which take popular concepts from early video games and update them with more complex graphics, sound, and gameplay. In *Demons*, players shoot at rows of targets moving from side to side.

However, the new game features several new wrinkles—finely detailed animation as the smiling demons dance across the screen, movement in both directions at once, and the challenge of picking out only your own targets and avoiding your opponent's in the fast-moving shooting gallery display. It's a real sharpshooting test, and a great game for head-to-head competition.

The August release from Atari is the third major arcade game to appear in home cartridge version this year—BERZERK. The game puts the player in a maze full of hostile robots, led by what looks like one of those round, smiling happy faces—but in reality, that's the sinister Evil Otto, the most ferocious exterminator in the maze.

Adapting coin video games to home cartridge versions is not the easiest job in the whole world. An arcade machine may offer 6 to 12 times the computer memory capacity of a home game cartridge. By reaching deep in their bag of technical tricks, though, Atari programmers have been turning out home video game adaptations which are remarkably close to the popular arcade versions—and *Berzerk* is another great adaptation. Changing mazes as your little man runs from room to room—the robots' visors rotating as they track you down—laser bullets firing and reaching their target—they're all just the way you'd find them at the arcade. But now, thanks to Atari ingenuity, we can have *Berzerk*'s one-of-a-kind action at home. □



# Have you played WARLORDS today?

Defend king and castle in  
this electronic battle royal.

Four princely warlords appear, each with a castle protecting his corner of the territory, and fireballs and lightning balls to hurl at his opponents.

The battle begins! Contestants struggle to break through the enemy fortresses, while shielding their own walls from attack. Each hit weakens the defensive armaments.

An opening! A carefully aimed shot ricochets off the far wall, penetrates the castle defenses and, with a blinding flash, the first Warlord vanishes. Only three left—on with the battle!

This is WARLORDS, an incredibly fast-moving game of skill, strategy, and quick reflexes. It lets up to 4 players enjoy breakneck *Breakout*-style action at once—all you need are 3 friends and an extra set of paddle controllers.

The *Warlords* playfield includes four castles with walls which are destroyed, like the walls in *Breakout*. Players move their shields around the walls of the castle with their paddle controllers, protecting themselves from oncoming shots and directing the ball toward their opponents. When the defensive wall has been chipped away and openings appear, a well-placed shot will hit the Warlord himself and eliminate him from the battle. It takes 5 victorious battles to win the war.

There are 23 *Warlords* game variations in all, including selections for—

**BALL SPEED:** Choose fireball (slower) or lightning ball (faster).

**NUMBERS OF PLAYERS:** One to four people can defend individual castles, and there's a doubles variation which lets two players defend two castles each. Any castle not represented by a human player is defended by a VCS-controlled shield.

**SHIELD PLAY:** The ball will bounce off shields in Ricochet variations. In



Catch variations, players can catch the ball, aim it, then release it.

*Warlords* brings a roomful of people into riotous Atari action at once. It's guaranteed to bring any party to life, with up to four players locked in furious head-to-head competition.

## SKILLBUILDERS

Here are some tips for improving your *Warlords* playing performance, straight from Carla Meninsky, the Atari programmer who created the game:

- The ball will travel either straight side to side, up or down, or at a 45° diagonal angle—there are no other possible paths. Knowing this, you can plan shots to rebound predictably, pool-table-style, off the side walls.
- Players facing each other top and bottom are more dangerous to each other than those placed side to side or crossways on the field. Therefore, position the best players facing each other top to bottom, to keep things even.
- It is much easier to destroy a VCS-

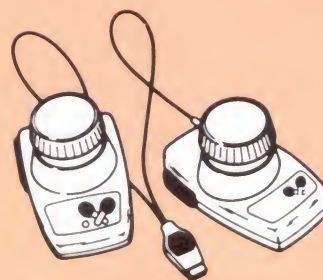
controlled opponent than a human one. This might lead you to concentrate your attack on your human opponents first, eliminating them from the game while your own defenses are strongest. However, remember the strategic importance of the computer's shield even *after* the Warlord it protected is destroyed. These shields continue to move along invisibly following the same patterns they used while they were visible. Hitting one of these invisible shields will deflect the ball—plan your shot well, and it could be a terrific surprise to your remaining opponents! By eliminating a computer foe first, you create a powerful weapon for attacking human opponents. □

## Special Offer ... SAVE \$12

Get a second set of paddle controllers and get in on all the thrilling 4-player action of WARLORDS, BREAKOUT, CASINO, STREET RACER, and VIDEO OLYMPICS.

Now club members can save over 54% on paddle controllers!

Order WARLORDS today from The Atari Club and receive an extra set of paddle controllers—regularly sold for \$21.95—for just \$10.00!





BRAND NEW FROM ATARI—

# BERZERK



ATARI®  
VIDEO COMPUTER SYSTEM™

BERZERK™



*All the thrilling arcade action  
of BERZERK, now coming in a home video game cartridge.*

## "INTRUDER ALERT!"

You are the intruder on Mazeon, a planet where pulse-pounding danger waits around every corner. You are trapped in a deadly maze, stalked by faceless robot guards programmed to eliminate you with their laser guns. They're powerful enemies!

You have a laser gun too—and a pair of legs to get you through that maze in a hurry. And you'd better

move fast—here comes Evil Otto, the orange happy-faced ruler of Mazeon. Don't let that smile fool you for a minute! Otto is the deadliest threat of all—and your laser blaster is powerless to stop him!

Created by Stern Electronics, BERZERK is one of the most popular coin video games ever. And now Atari game players can bring all the fast-moving fun of this arcade favorite onto the home screen with this extraordinary new Game Program cartridge.

One player

Twelve games  
\$31.95

**ORDER TODAY—CALL TOLL FREE 1-800-345-8600**  
(PA Residents Call 1-800-662-5180)

## We Have All The Terrific ATARI Cartridges!

The Atari Club is the best place to find every Game Program cartridge Atari makes—both brand new and existing titles. You'll find the complete Cartridge Checklist on page 19. List your choices on the Order Form, or call TOLL FREE 1-800-345-8600 (PA residents call 1-800-662-5180).



**SPECIAL BONUS!**  
"ATARI FORCE"  
DC Comic Book included  
with BERZERK Cartridge.

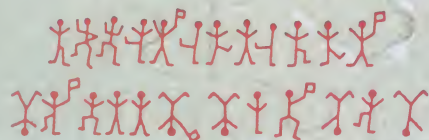


# Codebreaker!

Secret codes hold the key to espionage, international intrigue—and sometimes even buried treasure! The solution to this puzzling 165-year-old secret message could be worth \$20 million to the successful codebreaker!

Sherlock Holmes spread the papers across the table and threw himself into hours of intense calculation. He puzzled over the mysterious dancing stick figures, "covering sheet after sheet of paper with figures and letters . . . Finally he sprang from his chair with a cry of satisfaction, and walked up and down the room rubbing his hands together."

What secret had Holmes discovered in these seemingly innocent drawings?



He had deduced that the little men were actually figures in a code—each different stance representing another letter, and the little flags held by some indicating the end of a word. By cracking this ingenious code, the world's greatest detective unraveled the elusive secret of "The Adventure of the Dancing Men" and brought a sinister murderer to justice.

The world of codes is a fascinating area of mystery and intrigue. For thousands of years, men have tried to hide their darkest secrets by inventing devious codes to disguise their communications. But as Holmes so wisely remarks, "What one man can invent another can discover." It is the mission of the codebreaker, or *cryptanalyst*, to decipher secret messages, bringing carefully hidden plans and actions to light—often with dramatic results.

## The Zimmerman Telegram

Codebreaking has changed the course of history many times. In fact, a skilled team of British codebreakers played a decisive role in U.S. history, when a secret message they decoded drove

the reluctant Americans into World War I.

It was early in 1917—Europe had been at war for three years, but the American people did not want to get involved in the fighting.

Then British Intelligence discovered a cable sent by Alfred Zimmerman, Germany's foreign minister, to the German Ambassador in the U.S. The cable was written in a top-secret German diplomatic code—but it was a code the British had partially cracked during six months of painstaking labor. Now they worked around the clock, and finally succeeded in deciphering the entire cable. The message they had uncovered was a bombshell!

In the cable, Zimmerman instructed his ambassador to offer the Mexican government a deal. If the U.S. entered the war, Germany wanted to arrange a military alliance with Mexico. Mexico would fight against the U.S. In return, the Germans would give Texas, New Mexico, and Arizona to Mexico when the war ended!

The British passed this explosive document on to the U.S. government and waited for the reaction. They didn't have long to wait!

On March 1, 1917, the "secret" German message was published in newspapers across the country—and the public was furious! By April 2, President Wilson asked the Congress for a formal declaration of war against the Imperial German Government. "The Yanks were coming!"—thanks to British codebreaking ingenuity.

## A Meeting in Casablanca

Coded messages which fall into the wrong hands—like the Zimmerman Telegram—can defeat the plans of foreign agents. Sometimes, though, a message which gets into the *right* hands can still go wrong.

Take the story of a Nazi spy in Spain during World War II. He had discovered that Roosevelt and Churchill were planning a secret meeting in Casablanca. This was vital information—the Allied leaders would be vulnerable to German attack at this North African meeting place!

The spy sent an urgent coded message to Nazi headquarters in Berlin.

71, 194, 38  
1701, 89, 76, 11  
63, 132, 16, 111, 95  
81, 139, 213, 63, 90, 1120, 8, 15, 3, 126, 2018, 40, 74, 758, 485,  
604, 230, 436, 664, 582, 150, 251, 284, 308, 231, 124, 211, 486, 225, 404,  
370, 11, 101, 305, 139, 189, 17, 33, 88, 208, 193, 145, 1, 94, 73, 416, 918, 263,  
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162, 286, 19, 21, 17, 340, 19, 242, 31, 86, 234, 140, 607, 115, 33, 191, 67, 104,  
86, 52, 88, 16, 80, 121, 67, 95, 122, 216, 548, 96, 11, 201, 77, 364, 218, 65, 667,  
689, 236, 154, 211, 10, 98, 34, 119, 56, 216, 119, 71, 218, 1164, 1496, 1817, 51, 39,  
210, 36, 3, 19, 540, 232, 22, 141, 617, 84, 290, 80, 46, 207, 411, 150, 29, 38, 46, 172, 85,  
194, 36, 261, 543, 897, 624, 18, 212, 416, 127, 931, 19, 4, 63, 96, 12, 101, 418, 16, 140, 230,  
460, 538, 19, 27, 88, 612, 1431, 90, 716, 275, 74, 83, 11, 426, 89, 72, 84, 1300, 1706, 814,  
221, 132, 40, 102, 34, 858, 975, 1101, 84, 16, 79, 23, 16, 81, 122, 324, 403, 912, 227, 936, 447,  
55, 86, 34, 43, 212, 107, 96, 314, 964, 1065, 323, 428, 601, 203, 124, 95,  
216, 814, 2906, 654, 820, 2, 301, 112, 176, 213, 71, 87, 96, 202, 35, 10, 2,  
41, 17,  
214, 11,  
84, 221, 736, 820,  
60, 760.



However, when the Nazis deciphered the message, they made a crucial error in translating it from Spanish to German. Instead of reading "Casablanca" as the name of a North African city, they took it to be two Spanish words—"casa" meaning "house" and "blanca" meaning "white." They assumed the meeting was going to occur at the White House—but they certainly couldn't attack the Allied leaders in Washington, DC. What was all the excitement about?

Roosevelt and Churchill were saved through a happy accident.

### The Coded Key To a \$20 Million Treasure

One of the most intriguing of history's unbroken codes is now nearly 165 years old and still unsolved, despite feverish efforts by generations of expert codebreakers. The reason for their interest is easy to understand—the code holds the key to a buried treasure worth \$20 million! And when you learn the story of this unfound fortune, you may want to join these treasure-hunting cryptanalysts yourself!

The mystery begins in 1817, and the man at the heart of it is Thomas Jefferson Beale, who left his Virginia home with a party of men to hunt wild animals in the West.

What they found on their expedition was gold—an enormous deposit about 250 miles north of Santa Fe. The party spent 18 months digging, then returned to Virginia to conceal their newfound wealth. Beale left a locked iron box with a trusted friend, an innkeeper named Robert Morris, and left once more for the West. Morris received a single letter from Beale two months later, posted from St. Louis, telling the innkeeper that the box contained papers which would be "unintelligible without the aid of a key." The key, Beale continued, had been left with a friend in St. Louis, and was to be delivered to Morris in time.

Beale then disappeared—he was never seen or heard from again, and the promised "key" never arrived. Morris waited faithfully for 20 years before opening the sealed box. In it he found three sets of numbers, which turned out to be coded messages. Without the "key" to the code which Beale had promised, though, Morris could not make sense out of the garbled figures.

Morris held on to the three coded messages for nearly two decades before turning them over to James Ward, a wealthy gentleman who devoted months to singleminded efforts at deci-

phering Beale's message. Finally, he broke the code for Cipher Number Two—and what a story it told!

"I have deposited in the County of Bedford about four miles from Buford's," Beale had written, "the following articles belonging jointly to the parties whose names are given in number three herewith. The first deposit consisted of ten hundred and fourteen pounds of gold and thirty eight hundred and twelve pounds of silver deposited Nov. eighteen nineteen. The second was made Dec. eighteen twenty one and consisted of nineteen hundred and seven pounds of gold and eighty eight of silver, also jewels obtained in St. Louis in exchange to save transportation and valued at thirteen hundred dollars . . . . Paper number one describes the exact locality of the vault so that no difficulty will be had in finding it."

"No difficulty" indeed—if the key to the code was known! Beale's coding method was devilishly simple, yet virtually uncrackable by standard code-breaking means. The code used to encipher Message Number Two, which Ward had successfully decoded, was based on the Declaration of Independence. Beale had numbered each word of the Declaration, then "spelled out" his secret message by writing down, one letter at a time, the number corresponding to one of the words in

the Declaration which began with the letter he needed.

How do you break a code constructed in this way? It isn't simply a matter of finding out which number corresponds to each letter in the solution—several different words in the key document will begin with the same letter, and Beale could choose the number of any one of these to substitute for each letter in the coded message. There is virtually no way to break the code without learning the identity of the "key" document. Once that key is found, the message unfolds easily—and reveals the location of a treasure worth \$20 million based on modern prices!

So far, no one has cracked the perplexing Message Number One—but not for lack of trying. Cryptanalytical experts, computer scientists, even top codebreakers from the CIA and the National Security Agency have taken a crack at it, along with dozens of amateur sleuths—but still Beale's secret remains. As you can see from the decoding of Message Number Two, the code itself is probably not all that difficult—once you find Beale's mysterious key!

Think you can figure it out? We've reprinted the complete text of Beale's first cipher at the top of page 12. A little skill, a little luck, and you could become the wealthiest codebreaker of all time! □





# the Clubhouse Store

## Welcome to your store . . .

If you're an Atari fan, you've come to the right place! The Clubhouse Store has *all* the terrific Atari game cartridges and accessories (see the checklist on page 19) . . . and *lots more!*

We've got things to wear—to play with—to hang in your room or bring to the beach. And it's all easy to order—just send in the order form on page 15 of *Atari Age*, or call us TOLL FREE at 1-800-345-8600 with your credit card order (PA residents call 1-800-662-5180).

### I LOVE ATARI!

Tell the world that your heart belongs to Atari with this beautiful jewelry. Shining 24K gold electroplate with a bright red enamel heartthrob in the middle. Just wait till your friends see it!



**Necklace:** Shown here actual size, complete with an 18-inch 24K gold electroplate chain.

Item Code A18 \$14.50

**Pin:** Shown here actual size.

Item Code A19 \$14.50

Available only from The Atari Club!



### It's Atari Time!

Brand new and available *only* through the Clubhouse Store, a sharp-looking TIMEX digital watch with the Atari name and logo proudly displayed. This rugged sport-styled watch gives you the time, day, and date with *no buttons to push*—just an ultramodern command bar on the front for easy setting.

Item Code A17 \$24.95

Available only from The Atari Club!



**Pierced Earrings:** The Atari logo in 24K gold electroplate with surgical steel post and stainless steel clutch. Shown here actual size.

Item Code A20 \$10.00

Available only from The Atari Club!



### Super Sports Wallet!

A lightweight, trim wallet specially designed for sports-minded Atari players. It's machine washable with a velcro® strip to keep it securely closed, and a special hidden pocket for coins. A very practical way to stash your cash!

Item Code A36 (Tan) \$9.50  
Item Code A37 (Burgundy) \$9.50

Available only from The Atari Club!





**No Sweat!** Bjorn Borg, eat your heart out! These official Atari headbands and wristbands are for Atari Club members only! Perfect for tennis, jogging, bicycling, basketball—you name it, you'll look like a winner with this attention-getting gear. Set includes one headband and a pair of wristbands, all with Atari name and logo.

Item Code A24 \$3.95

Available only from The Atari Club!

**Tops in Atari Attire.** Forget those alligator shirts—here's a classic 3-button knit polo shirt with the Atari name and logo proudly displayed. With French knit collar, hemmed cuffs and waist, in comfortable easy-care cotton/polyester blend. Youth sizes S, M, L. Adult sizes S, M, L, XL. Available in light blue only.

Item Code A42 \$15.00

Available only from The Atari Club!



**Go Fly a Kite!** The most unusual kite we've ever seen—and we have it with a special high-flying Atari design. This patented, aerodynamically designed kite does *not* require helium to inflate—it's the shape and structure that give it superior lift and stability. Comes complete with 300 feet of string—ready to fly!

Item Code A21 \$5.75

Available only from The Atari Club!

**T-Shirts for Hot Shots.** Attention all *Asteroids* and *Missile Command* fans—here are the shirts you need to look as sharp as you shoot. Dynamic designs in full eye-popping color on quality 50% cotton 50% polyester T-shirts. Children's sizes S (6-8), M (10-12), L (14-16). Adult sizes S, M, L, XL. Choose blue, yellow, or red in all sizes.

Please specify item code, style, color, and size when ordering!

<b>Asteroids</b>	Youth Item Code A13	\$6.95
	Adult Item Code A14	\$6.95
<b>Missile Command</b>	Youth Item Code A15	\$6.95
	Adult Item Code A16	\$6.95

**Tray Chic!** Like to play your Atari game sitting on the floor, or in bed? Here's the perfect play tray for you! The Atari VCS console fits perfectly on this sturdy tray, with folding legs and an irresistible design—the authentic Pac-Man coin video maze reproduced in full color.

Item Code A27 \$5.95



**Magnificent!** Perfect for soup or soda sippers, the official Atari Club thermal mug holds 10 ounces of your favorite beverage—and keeps it at the right temperature for quick gulps between games.

Item Code A38 (Single Mug) \$3.95  
Item Code A39 (Set of 4 mugs) \$11.95

Available only from The Atari Club!



**Sticker It!** On your car bumper, bike fender, your notebook, your little sister—wherever you want to make your mark with bright sayings and brighter colors. A set of six slick stickers in all—and they all have special removable backing so you can change stickers with ease.

Item Code A25 (Set of six) \$3.95

Available only from The Atari Club!





**Keys to Success.** Carry your keys with class—choose your favorite video game emblem in a scratchproof crystalite dome on a suede/velour backing.

Atari	Item Code A33	\$2.50
Pac-Man	Item Code A34	\$2.50
Berzerk	Item Code A35	\$2.50

**Long-Playing Disc.** You'll have hours of summer fun with this official Atari Frisbee.® It's a genuine Wham-O Frisbee—the farthest-flying, finest flying disc there is!

Item Code A23 \$3.50

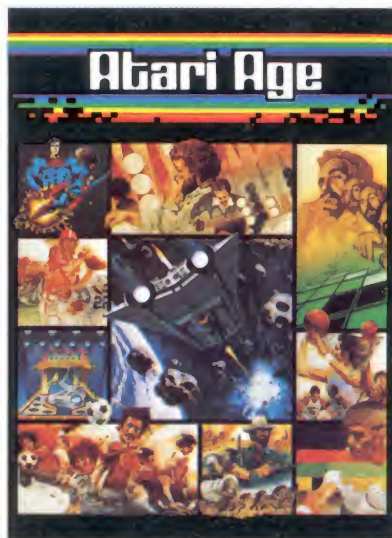
Available only from The Atari Club!



**Get Organized!** Brand new from Atari—a total Game Center that holds the game console, controllers, and cartridges in one neat unit. Pick up the dust cover—your game is ready to play! 27 cartridges with manuals fit in the bottom. Lets players find everything quickly.

Item Code A09 \$39.95

**SPECIAL OFFER:** Order your Atari Game Center from the Clubhouse Store, and get your official Atari Club mug absolutely FREE!



**Post Our Poster!** Bring the new Atari Age home with this brilliantly colored 22 by 29 inch poster. Features artwork from 10 Game Program cartridges and the official Atari Age logo.

Item Code A12 \$3.95

Available only from The Atari Club!

**Hit the Beach!** Show them all you're an Atari Ace! A big, beautiful 30 by 60 inch sheared velour beach towel.

Item Code A22 \$17.50

Available only from The Atari Club!

**Duffel Your Pleasure, Duffel Your Fun!** With this big, bright Atari duffel bag, you'll have room to carry all your athletic gear—whether you're into sneaker-style sports or out for an electronic workout. This really eyecatching carry-all comes in practical, water-resistant canvas.

Item Code A30 (Blue) \$14.75  
Item Code A29 (Red) \$14.75



**Heads-up Hats** for everyone on the Atari team. Comfortable sports cap style with cool nylon mesh back and sides, the famous Atari "fui" on the front. Big knit sun-blocking brim makes this cap as practical as it is attractive. One size fits all.

Item Code A26 \$5.95

**This Jacket Is Not For Sale to the Public!** Atari created this sharp racing-style jacket as a special offer for folks who buy new VCS units during May, June, and July. No one else can buy one—except for members of The Atari Club! We've arranged to make these jackets available to Club members only through the Clubhouse Store—and what terrific jackets they are! Fully lined in two styles—silver or navy blue—with contrasting Atari patches stitched on the front. Youth sizes S, M, L, XL. Adult sizes S, M, L, XL.

Item Code A41 (Silver) \$29.95  
Item Code A40 (Navy Blue) \$29.95

**Time to Pack?** It will all fit in this official Atari backpack. A terrific way to carry your books to school—or your game cartridges to a friend's house. The perfect comfortable carry-all to take on light hiking trips or beach outings.

Item Code A32 (Blue) \$17.75  
Item Code A31 (Red) \$17.75





# SCREEN SCRAMBLE SOLUTION

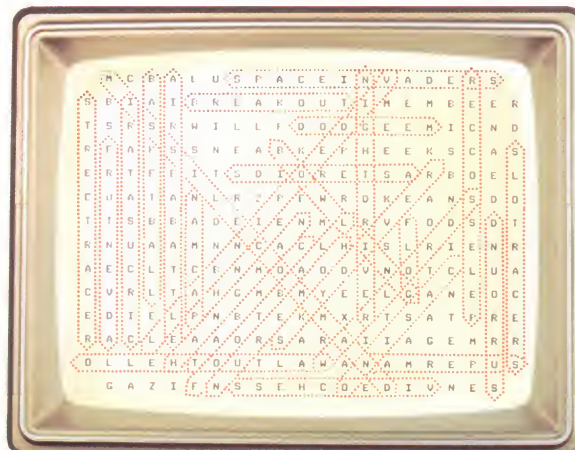
## Inside Your Atari VCS (continued)

reads the information contained in the Game Program cartridge to learn the rules of the game. It compares these rules with the information supplied by the RIOT about switch settings and joystick activity. Based on this combination of data, it determines the position of up to six different elements at once—the computer labels these functions as Player 1, Player 2, Missile 1, Missile 2, Ball, and Playfield.

Of course, each of these elements takes on a different shape and function in each Atari game. In *Combat*, for example, Players 1 and 2 are the individual tanks or planes, Missiles 1 and 2 are their shots, and the maze used in several variations is controlled by the playfield function. In *Pac-Man*, on the other hand, Pac-Man himself is Player 1 and all four ghosts are controlled by the Player 2 function. That's why the ghosts seem to flicker—they actually are not all on the screen at the same time! The computer can only create one at a time, so it alternates, first displaying one, then another, then another, then the fourth, all at that fast 60 images per second rate. At that speed, our eyes see them all at once, but the image appears to flicker. That's okay, though—we all know that ghosts are flickering, elusive things.

The third integrated circuit used in the VCS is called the TIA (Television Interface Adaptor). This is Atari's "top secret" component, designed exclusively for use in the VCS to create the unit's dramatic sound and graphics based on the electronic instructions provided by the microprocessor. The electronic circuitry in the TIA is equivalent to 10,000 individual transistors, yet it is small enough to fit comfortably on the face of a dime.

One last interesting tidbit about the TIA's function is the fact that it can actually create not one sound at a time, but two. Many of the extraordinary game sounds we enjoy are actually combinations of two different sounds produced simultaneously. A "bang" and a distorted "fuzz" sound, when played together, reach our ears as a convincingly thunderous exploding missile, while the sound of cheering after a goal in *Pele's Soccer* imitates a roaring crowd by neatly combining a rising and falling tone with a steady "hiss" to produce a dramatic sound effect. □



Here are the answers to the puzzle which appeared in the last issue of *Atari Age*.

### Secret Message:

"Club members will find sneak peeks - at *Berzerk* and *Demons* in the next *Atari Age* magazine."



## Cartridge Checklist

How many of these Atari Game Program cartridges and accessories do you have in your collection?

### SPORTS ARENA

<input type="checkbox"/> Basketball C06	\$22.95
<input type="checkbox"/> Bowling C07	22.95
<input type="checkbox"/> Football C17	12.95
<input type="checkbox"/> Golf C18	22.95
<input type="checkbox"/> Home Run™ C20	12.95
<input type="checkbox"/> Pelé's Soccer™ C28	31.95
<input type="checkbox"/> Video Olympics™ C39	22.95

### ADVENTURE TERRITORY

<input type="checkbox"/> Adventure C01	31.95
<input type="checkbox"/> Haunted House C43	26.95
<input type="checkbox"/> Superman* C35	31.95

### RACE TRACK

<input type="checkbox"/> Dodge 'Em™ C16	22.95
<input type="checkbox"/> Indy 500 C22	39.95
<input type="checkbox"/> Night Driver® C25	26.95
<input type="checkbox"/> Slot Racers™ C30	22.95
<input type="checkbox"/> Street Racer™ C34	12.95

### SPACE STATION

<input type="checkbox"/> Asteroids™ C03	37.95
<input type="checkbox"/> Berzerk† C49	31.95
<input type="checkbox"/> Defender** C46	37.95
<input type="checkbox"/> Missile Command™ C24	31.95
<input type="checkbox"/> Space Invaders*** C31	31.95
<input type="checkbox"/> Space War C32	12.95
<input type="checkbox"/> Yars' Revenge™ C45	31.95

### COMBAT ZONE

<input type="checkbox"/> Air-Sea Battle™ C02	22.95
<input type="checkbox"/> Canyon Bomber® C10	22.95
<input type="checkbox"/> Combat C14	22.95
<input type="checkbox"/> Outlaw® C27	22.95
<input type="checkbox"/> Surround™ C33	12.95
<input type="checkbox"/> Warlords™ C41	31.95

### SKILL GALLERY

<input type="checkbox"/> Breakout® C09	22.95
<input type="checkbox"/> Super Breakout™ C42	31.95
<input type="checkbox"/> Circus ATARI® C12	26.95
<input type="checkbox"/> Demons To Diamonds™ C48	26.95
<input type="checkbox"/> Human Cannonball C21	12.95
<input type="checkbox"/> Maze Craze™ C23	26.95

### SKILL GALLERY (continued)

<input type="checkbox"/> Pac-Man†† C44	37.95
<input type="checkbox"/> Sky Diver® C29	22.95
<input type="checkbox"/> Video Pinball C40	31.95

### CLASSICS CORNER

<input type="checkbox"/> Backgammon C04	26.95
<input type="checkbox"/> Casino™ C11	31.95
<input type="checkbox"/> Othello††† C26	22.95
<input type="checkbox"/> 3-D Tic-Tac-Toe C36	22.95
<input type="checkbox"/> Video Checkers™ C37	22.95
<input type="checkbox"/> Video Chess™ C38	26.95

### LEARNING CENTER

<input type="checkbox"/> Basic Programming C06	26.95
<input type="checkbox"/> Brain Games C08	22.95
<input type="checkbox"/> Codebreaker™ C13	22.95
<input type="checkbox"/> A Game of Concentration C15	22.95
<input type="checkbox"/> Hangman C19	22.95
<input type="checkbox"/> Math Gran Prix™ C47	22.95

### ACCESSORIES

<input type="checkbox"/> AC Adapter A01	9.95
<input type="checkbox"/> Driving Controllers (Pair) A02	21.95
<input type="checkbox"/> Joystick Controller (Single) A03	10.95
<input type="checkbox"/> Keyboard Controller (Pair) A04	21.95
<input type="checkbox"/> Paddle Controller (Pair) A05	21.95
<input type="checkbox"/> TV Switch Box A06	9.95
<input type="checkbox"/> Dust Cover A10	7.95
<input type="checkbox"/> Game Cartridge Case A08	9.95
<input type="checkbox"/> Modular Cartridge Library A07	14.95
<input type="checkbox"/> Home Game Center A09	39.95

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\*\*Trademark of Williams Electronics, Inc.

\*\*\*Trademark of Taito America Corp.

†Berzerk is a trademark of Stern Electronics, Inc.

††PAC-MAN is a trademark of Bally Midway Mfg. Co. licensed by Namco-America, Inc.

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A not-so-quiet day at the beach!  
The seaside has been invaded by characters and objects from 23 different Atari games—  
how many of them can you identify?

Answers in the next issue of ATARI AGE.